RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: February 2003

BUDGET ACTIVITY: 07 - Operational System Development

PE NUMBER AND TITLE: 0207449F Multi-sensor Command and Control Constellation (MC2C)

	COST ($ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	0	333,864	363,630	550,860	542,458	343,969	155,536	21,315	Continuing	TBD
5064	Airframe	0	125,495	208,305	360,432	372,211	256,545	113,841	21,315	Continuing	TBD
5065	Sensors	0	208,369	155,325	190,428	170,247	87,424	41,695	0	Continuing	TBD
5078	Horizontal Integration	0	0	0	0	0	0	0	0	Continuing	TBD
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

1. In FY 2003, the Air Force established a program element called the Multi-sensor Command and Control Constellation (MC2C) to support the development of the constellation's key node -- the Multi-sensor Command and Control Aircraft (MC2A). The MC2 Constellation will be a horizontally integrated architecture of Command and Control (C2) and Intelligence, Surveillance, and Reconnaissance (ISR) capabilities to support global and theater persistent battlespace awareness. Its central element is the MC2 Aircraft (MC2A) which is a key enabler of the national military anti-access strategy, the AEF Task Force concept, and the joint cruise missile defense (CMD) architecture . The MC2C PE absorbed, and continued, the Multi-Platform Radar Technology Insertion Program (MP-RTIP) previously reported in PE 0207581F Joint STARS, Project Number 674995. Additionally, it supports the transition of hosting the MP-RTIP sensor on a 767-400ER platform vice a 707 airframe with funding transferred from PE 0207581F Joint STARS, Project Number 670003. With the current funding profile, delivery of the required four MC2A spiral 1 aircraft is planned for CY13, one year late to Defense Planning Guidance direction. To clarify the programmatic confusion between the MC2 Aircraft (MC2A) and the MC2 Constellation, the Air Force is in the midst of revising its budgeting structure to clearly delineate separate PEs for these two efforts as follows: (1) this PE will be retitled as MC2A and (2) a new PE, titled 'Horizontal Integration', will be added. The realigned Air Force PE structure is expected to be in place no later than the FY05 APOM.

2. FYDP RDT&E Article Deliveries:
FY 2005: 1 767-400ER Testbed
FY 2007: 1 Global Hawk MP-RTIP radar for integration
FY 2008: 1 MC2A MP-RTIP radar for testbed/flight test
1 MC2A MP-RTIP radar for SIL/integration

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE February 2003
BUDGET ACTIVITY 07 - Operational System Development	PE NUMBER AND TITLE 0207449F Multi-sensor Command and Control Constellation (MC2C)

1 MC2A MP-RTIP radar for concurrent mode development

3. FY03 DERF funding is reflected in the MC2C program line. MC2C received $147M FY03 DERF funding which was included in the program as follows: $85.3M to MC2A airframe (BPAC 675064); $61.7M for the acceleration of MP-RTIP sensor development in (BPAC 675065); and $20.5M for MC2 Constellation horizontal integration efforts (accounted for in the Airframe/BPAC 675064). The DERF funding was used to initiate the incrementally funded purchase of a RDT&E 767-400ER aircraft, begin system engineering design efforts for the aircraft modifications, accelerate MP-RTIP sensor development and initiate the MC2 Constellation's horizontal integration architecture development.

(U) A. Mission Description

The Multi-sensor Command and Control Constellation (MC2C) will be a horizontally integrated architecture of Command and Control (C2), Intelligence, Surveillance, and Reconnaissance (ISR) capabilities. The MC2C will be Task Forces' critical enabling function to achieve persistent battlespace awareness. This vision integrates current, developmental, and future manned/unmanned space, air and ground sensors, data links, ground stations, exploitation tools, communication/information dissemination systems and C2/ battle management elements to give the warfighter real-time, decision quality information to prosecute the full range of military operations. MC2C will achieve horizontal integration through the development of a network centric architecture, use of rapidly maturing modeling and simulation techniques, and application of rapid reaction, high leverage technology initiatives.

A key element of MC2 Constellation is the Multi-sensor Command and Control Aircraft (MC2A) -- the 'hub' of the constellation's architecture. The MC2 Aircraft will be the next generation, manned wide area surveillance platform designed to provide a near real-time, horizontally integrated view of the air and space battlespace through the use of advanced sensors, network-centric warfare and high-speed, wide band communications systems. A constellation of high/ medium altitude endurance Unmanned Air Vehicles (UAVs) and space sensors will augment the MC2A's sensor capabilities to provide precise target location/identification data. This robust network of sensor information enables seamless re-tasking of theater and global sensors from collection to targeting.

As the heart of the constellation, the MC2A will employ sensors, communications, data links, and battle management integration software to execute the full range of military operations. MC2A will interface with multi-service ground/air/space-based sensors, intelligence and communications assets to shorten the decision cycle for combat operations. MC2A enables the detection, designation, and prosecution of time critical targets by providing battlespace situational awareness.

MC2A's capability will be developed in evolutionary spirals. MC2A Spiral 1, based on the Multi-Platform Radar Technology Insertion Program (MP-RTIP) capabilities, delivers an advanced, next generation Ground Moving Target Indicator (GMTI) wide area surveillance capability, focused Air Moving Target Indicator (AMTI) for Cruise Missile Defense (CMD), open system architecture facilitating a dynamic Battle Management, Command and Control (BMC2) and growth potential for Unmanned Aerial Vehicle (UAV) control, space-based radar interface and Intelligence, Surveillance and Reconnaissance (ISR) management functions integrated

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE: February 2003
BUDGET ACTIVITY: 07 - Operational System Development	PE NUMBER AND TITLE: 0207449F Multi-sensor Command and Control Constellation (MC2C)

(U) A. Mission Description Continued

onto a 767-400ER airframe. MC2A future spirals are envisioned to incorporate advanced sensors for air surveillance operations, sensor fusion, battle management functions, UAV control, space-based radar integration and laser communications.

The MP-RTIP program will also provide a robust Global Hawk reconnaissance capability. The MP-RTIP program plan no longer includes the fabrication of a radar for NATO AGS (formerly known as the NATAR radar) due to a lack of a NATO AGS platform selection decision, but continues to support the NATO AGS radar definition effort and early decision analysis activities to support OSD's strategy for the United States' involvement in the NATO AGS program.

(U) B. Budget Activity Justification

These funds are required to meet the requirements, capabilities and efforts further defined in the 'Mission Description' section of the following R-2s.

(U) C. Program Change Summary ($ in Thousands)

		FY 2002	FY 2003	FY 2004	Total Cost
(U)	Previous President's Budget	0	191,089	402,258	TBD
(U)	Appropriated Value		191,089		
(U)	Adjustments to Appropriated Value				
	a. Congressional/General Reductions				
	b. Small Business Innovative Research				
	c. Omnibus or Other Above Threshold Reprogram		-4,225		
	d. Below Threshold Reprogram				
	e. Rescissions				
(U)	Adjustments to Budget Years Since FY 2003 PBR		147,000	-38,628	TBD
(U)	Current Budget Submit/FY 2004 PBR		333,864	363,630	TBD

(U) Significant Program Changes:

The FY03 PBR to FY04 PBR funding increases reflect the MC2A Spiral 1 costs associated with transitioning the MP-RTIP radar from a 707 platform to a 767-400ER platform. Funding for fabrication of the NATAR radar for NATO AGS has been removed from the program.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE: February 2003

BUDGET ACTIVITY: 07 - Operational System Development

PE NUMBER AND TITLE: 0207449F Multi-sensor Command and Control Constellation (MC2C)

PROJECT: 5064

COST ($ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
5064 Airframe	0	125,495	208,305	360,432	372,211	256,545	113,841	21,315	Continuing	TBD

1. In FY 2003, the Air Force established a program element called the Multi-sensor Command and Control Constellation (MC2C) to support the development of the constellation's key node -- the Multi-sensor Command and Control Aircraft (MC2A). The MC2 Constellation will be a horizontally integrated architecture of Command and Control (C2) and Intelligence, Surveillance, and Reconnaissance (ISR) capabilities to support global and theater persistent battlespace awareness. Its central element is the MC2 Aircraft (MC2A) which is a key enabler of the national military anti-access strategy, the AEF Task Force concept, and the joint cruise missile defense (CMD) architecture . The MC2C PE absorbed, and continued, the Multi-Platform Radar Technology Insertion Program (MP-RTIP) previously reported in PE 0207581F Joint STARS, Project Number 674995. Additionally, it supports the transition of hosting the MP-RTIP sensor on a 767-400ER platform vice a 707 airframe with funding transferred from PE 0207581F Joint STARS, Project Number 670003. With the current funding profile, delivery of the required four MC2A spiral 1 aircraft is planned for CY13, one year late to Defense Planning Guidance direction. To clarify the programmatic confusion between the MC2 Aircraft (MC2A) and the MC2 Constellation, the Air Force is in the midst of revising its budgeting structure to clearly delineate separate PEs for these two efforts as follows: (1) this PE will be retitled as MC2A and (2) a new PE, titled 'Horizontal Integration', will be added. The realigned Air Force PE structure is expected to be in place no later than the FY05 APOM.

(U) A. Mission Description

Project 675064, Airframe, is established within the MC2 Constellation PE 0207449F to develop a manned, next generation wide area surveillance platform to provide a near real-time, horizontally integrated view of the air and surface battlespace through the use of advanced sensors, network centric warfare and high-speed, wide band communications. This platform, the Multi-sensor Command and Control Aircraft (MC2A), is the 'hub' of the MC2 constellation's network centric systems architecture.

The Multi-sensor Command and Control Aircraft (MC2A) will be a manned 767-400ER aircraft with advanced air/ground sensors, data links and communications to enable persistent battlespace awareness. MC2A's capability will be developed in evolutionary spirals. Spiral 1 is funded to provide the next generation Ground Moving Target Indicator (GMTI) for counter land mission capability, focused AMTI for Cruise Missile Defense (CMD), an open system architecture facilitating Battle Management, Command and Control (BMC2) and growth potential for UAV control, space-based radar interface and Intelligence, Surveillance and Reconnaissance (ISR) management functions. The MC2A spiral 1 sensor capability is provided via the MP-RTIP program. MP-RTIP, formerly a pre-planned product improvement to Joint STARS, will deliver a significantly enhanced wide area surveillance capability to the warfighter. The system is capable of being cued by other reconnaissance, surveillance, and target acquisition systems and is able to respond rapidly to worldwide contingencies. MC2A, with improved wide area surveillance capability, will greatly improve the commander's ability to detect, locate, classify, track, and monitor moving targets, provide target information to assigned aerospace and ground weapons systems thus enabling persistent battlespace awareness.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE: February 2003

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
07 - Operational System Development	0207449F Multi-sensor Command and Control Constellation (MC2C)	5064

(U) A. Mission Description Continued

Funds in Project 675064 will be used to (1) incrementally fund the purchase a Boeing 767-400ER aircraft and (2) design, develop, and execute the transformation of the 'green'/commercial 767-400ER into a MC2A testbed to deliver Spiral 1 capabilities. This activity will yield a 'smart' design to preserve size, weight and power allocations for future MC2A spirals. This 767-400ER testbed will be MC2A Spiral 1 production representative to demonstrate operational capability in the Developmental Testing/Operational Testing environment.

(U) FY 2002 ($ in Thousands)

(U)	$0	Activity prior to FY03 reported in PE 0207851F, Project 674995
(U)	$0	Total

(U) FY 2003 ($ in Thousands)

(U)	$20,500	Horizontal Integration Efforts
(U)	$20,000	Begin Incremental funding of a 767-400ER testbed
(U)	$58,394	Begin systems engineering associated with the modification of the commercial testbed
(U)	$2,000	Begin BMC2 efforts
(U)	$24,000	Begin Weapons Systems Integration (WSI) efforts
(U)	$601	SPO Ops Effort
(U)	$125,495	Total

** FY 2003: $147M in DERF was added to the MC2 Constellation PE as follows: $85.3M to MC2A airframe (BPAC 675064); which includes $20.5M for the horizontal integration efforts. The remaining $61.7M is for the acceleration of MP-RTIP sensor development in (BPAC 675065).

(U) FY 2004 ($ in Thousands)

(U)	$50,000	Continue Incremental funding of a 767-400ER testbed
(U)	$85,305	Continue systems engineering and design activities associated with the modification of the commercial testbed
(U)	$20,000	Continue BMC2 efforts
(U)	$27,000	Continue Weapon Systems Integration (WSI) efforts
(U)	$25,000	Lab/Test Lab/Test Hardware
(U)	$300	Conduct Future Studies/Spiral Development--includes concept exploration, program definition/risk reduction, and spiral development efforts supporting continuous improvement and implementation of C2ISR capabilities to enable a joint global strike task force
(U)	$700	Continue SPO Ops Effort

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE: February 2003
BUDGET ACTIVITY: 07 - Operational System Development	PE NUMBER AND TITLE: 0207449F Multi-sensor Command and Control Constellation (MC2C) / PROJECT: 5064

(U) A. Mission Description Continued

(U) FY 2004 ($ in Thousands) Continued
(U) $208,305 Total

(U) B. Project Change Summary

Not Applicable.

** FY 2003: $147M in DERF was added to the MC2 Constellation PE as follows: $85.3M to MC2A airframe (BPAC 675064); which includes $20.5M for the horizontal integration efforts. The remaining $61.7M is for the acceleration of MP-RTIP sensor development in (BPAC 675065).

(U) C. Other Program Funding Summary ($ in Thousands)

	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
(U) AF RDT&E										
(U) PE 0207449F/Project 675065 Sensors	0	208,369	155,325	190,428	170,247	87,424	41,695	0	Continuing	TBD
(U) PE 0207581F/Project 674995 MP-RTIP	73,170	0	0	0	0	0	0	0	Continuing	Continuing
(U) Other APPN										

(U) D. Acquisition Strategy

The MC2A acquisition strategy was endorsed by the Air Force on 13 Jan 03. Upon OSD(AT&L) approval, the program will enter an 18-month pre-System Development & Demonstration phase. In FY03 the following events will occur: (1) the incrementally funded purchase order for the 767-400ER will be placed (2) system design engineering will be initiated to transform the 'green'/commercial 767-400ER into an operationally representative MC2A testbed (3) MC2A Weapons System Integration effort will commence and (4) a competitive selection for a BMC2 provider will begin. MC2A Spiral 1 System Development & Demonstration (SDD) will begin after the MC2A Milestone B decision in FY 2004.

(U) E. Schedule Profile

FY 2002	FY 2003	FY 2004

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE: February 2003
BUDGET ACTIVITY: 07 - Operational System Development	PE NUMBER AND TITLE: 0207449F Multi-sensor Command and Control Constellation (MC2C) / PROJECT: 5064

(U) E. Schedule Profile Continued

	FY 2002				FY 2003				FY 2004			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Initiate System Design Engineering						X						
(U) Place incrementally funded purchase order for a 767-400ER							X					
(U) Initial Design Review (IDR)											X	

* Denotes completed event

X Denotes planned event

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)

DATE: February 2003

BUDGET ACTIVITY: 07 - Operational System Development

PE NUMBER AND TITLE: 0207449F Multi-sensor Command and Control Constellation (MC2C)

PROJECT: 5064

(U) A. Project Cost Breakdown ($ in Thousands)

		FY 2002	FY 2003	FY 2004
(U)	Horizontal Integration Efforts	0	20,500	0
(U)	Purchase testbed		20,000	50,000
(U)	Systems Engineering	0	58,394	85,305
(U)	BMC2	0	2,000	20,000
(U)	Weapons Systems Integration (WSI)		24,000	27,000
(U)	Lab/Test Hardware	0	0	25,000
(U)	Future Studies/Spiral Development	0	0	300
(U)	SPO Ops Support	0	601	700
(U)	Total	0	125,495	208,305

** FY 2003 funding includes: $85.3M DERF to MC2A airframe (BPAC 675064); which includes $20.5M for the horizontal integration efforts.

(U) B. Budget Acquisition History and Planning Information ($ in Thousands)

(U) Performing Organizations:

Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Product Development Organizations										
TBD	TBD	TBD					124,394	206,405	Continuing	TBD
Note: Awaiting competition results to determine contract award.										
Support and Management Organizations										
Program Office Support	N/A	N/A					601	700	Continuing	TBD
Test and Evaluation Organizations										
AFOTEC	Allotment	N/A					500	1,100	Continuing	TBD
JTF	Allotment	N/A					0	100	Continuing	TBD

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)	DATE: February 2003

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
07 - Operational System Development	0207449F Multi-sensor Command and Control Constellation (MC2C)	5064

(U) Government Furnished Property:

Item Description	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Delivery Date	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Product Development Property									
N/A									
Support and Management Property									
N/A									
Test and Evaluation Property									
N/A									

Subtotals	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Subtotal Product Development			124,394	206,405	TBD	TBD
Subtotal Support and Management			601	700	TBD	TBD
Subtotal Test and Evaluation			500	1,200	TBD	TBD
Total Project			125,495	208,305	TBD	TBD

** FY 2003 funding includes: $85.3M DERF to MC2A airframe (BPAC 675064); which includes $20.5M for the horizontal integration efforts.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE: February 2003

BUDGET ACTIVITY: 07 - Operational System Development

PE NUMBER AND TITLE: 0207449F Multi-sensor Command and Control Constellation (MC2C)

PROJECT: 5065

COST ($ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
5065 Sensors	0	208,369	155,325	190,428	170,247	87,424	41,695	0	Continuing	TBD

1. In FY 2003, the Air Force established a program element called the Multi-sensor Command and Control Constellation (MC2C) to support the development of the constellation's key node -- the Multi-sensor Command and Control Aircraft (MC2A). The MC2 Constellation will be a horizontally integrated architecture of Command and Control (C2) and Intelligence, Surveillance, and Reconnaissance (ISR) capabilities to support global and theater persistent battlespace awareness. Its central element is the MC2 Aircraft (MC2A) which is a key enabler of the national military anti-access strategy, the AEF Task Force concept, and the joint cruise missile defense (CMD) architecture . The MC2C PE absorbed, and continued, the Multi-Platform Radar Technology Insertion Program (MP-RTIP) previously reported in PE 0207581F Joint STARS, Project Number 674995. Additionally, it supports the transition of hosting the MP-RTIP sensor on a 767-400ER platform vice a 707 airframe with funding transferred from PE 0207581F Joint STARS, Project Number 670003. With the current funding profile, delivery of the required four MC2A spiral 1 aircraft is planned for CY13, one year late to Defense Planning Guidance direction. To clarify the programmatic confusion between the MC2 Aircraft (MC2A) and the MC2 Constellation, the Air Force is in the midst of revising its budgeting structure to clearly delineate separate PEs for these two efforts as follows: (1) this PE will be retitled as MC2A and (2) a new PE, titled 'Horizontal Integration', will be added. The realigned Air Force PE structure is expected to be in place no later than the FY05 APOM.

(U) A. Mission Description

Established in FY03, the MC2 Constellation PE 0207449F, Project 5065, Sensors, develops an integrated intelligence, surveillance, and reconnaissance capability to support network centric operations.

The Multi-Platform Radar Technology Insertion Program (MP-RTIP) is the sensor capability of the MC2 Aircraft Spiral 1 weapons system. MP-RTIP, as reported in the FY 2001 and FY 2002 R-2 Exhibits for PE 0207581F, was originally developed as a Pre-Planned Product Improvement to Joint STARS. MP-RTIP will now deliver a 'family' of sensor capability for two systems -- the Multi-sensor Command and Control Aircraft (MC2A) and Global Hawk. MP-RTIP will be a modular, scalable, two-dimensional active electronically scanned array (2D-AESA) radar. The development, fabrication, and test of the MP-RTIP 'family of radars' on the various platforms (MC2A 767-400ER testbed and Global Hawk) will utilize funds in PE 0207449F Project 5065. The MP-RTIP program no longer includes funding for the fabrication of a NATO AGS radar (formerly known as the NATAR radar) due to the lack of a NATO AGS platform selection decision, but continues to support NATO AGS' radar definition and early design development activities.

(U) FY 2002 ($ in Thousands)

(U) $0 Activity prior to FY03 reported in PE 0207581F, Project 674995.

(U) $0 Total

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE: February 2003

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
07 - Operational System Development	0207449F Multi-sensor Command and Control Constellation (MC2C)	5065

(U) A. Mission Description Continued

(U) FY 2003 ($ in Thousands)

(U)	$205,535	Continue Multi-Platform RTIP radar design and development for integration on a MC2A 767-400ER and Global Hawk target platforms
(U)	$1,910	Continue Test Efforts (includes Operator-In-The-Loop [OITL]; Joint Test Force Support; AFOTEC Support, and Independent Verification & Validation IV&V).
(U)	$324	Continue SPO Operations
(U)	$600	Continue Future Studies/Spiral Development--includes concept exploration, program definition/risk reduction, and spiral development efforts supporting continuous improvements and implementation of Command & Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) capabilities to enable a joint global strike task force.
(U)	$208,369	Total

**FY03: Funding includes: $61.7M DERF to continue MP-RTIP radar design and development for integration on a MC2A 767-400ER and Global Hawk platforms.

(U) FY 2004 ($ in Thousands)

(U)	$153,754	Continue Multi-Platform RTIP radar design and development for integration on a MC2A 767-400ER and Global Hawk target platforms
(U)	$1,137	Continue Test Efforts (includes Operator-In-The-Loop [OITL]; Joint Test Force Support; AFOTEC Support, and Independent Verification & Validation IV&V).
(U)	$100	Continue Future Studies/Spiral Development--includes concept exploration, program definition/risk reduction, and spiral development efforts supporting continuous improvements and implementation of Command & Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) capabilities to enable a joint global strike task force.
(U)	$334	Continue SPO Operations
(U)	$155,325	Total

(U) B. Project Change Summary

Not Applicable.

**FY03 DERF funding is reflected in the MC2 Constellation PE as follows: $61.7M for acceleration of MP-RTIP sensor development.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE: February 2003

BUDGET ACTIVITY: 07 - Operational System Development

PE NUMBER AND TITLE: 0207449F Multi-sensor Command and Control Constellation (MC2C)

PROJECT: 5065

(U) C. Other Program Funding Summary ($ in Thousands)

		FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
(U)	AF RDT&E										
(U)	PE 0207449F/Project 675064 Airframe	0	125,495	208,305	360,432	372,211	256,545	113,841	21,315	Continuing	TBD
(U)	PE 0207581F/Project 674995 MP-RTIP	73,170	0	0	0	0	0	0	0	Continuing	Continuing
(U)	PE 0305206F/Project 674819	9,000	10,000	7,000	2,000	0	0	0	0	Continuing	Continuing
(U)	PE 0305205F/Project 674799	0	11,000	32,000	34,000	18,000	8,000	0	0	Continuing	Continuing
(U)	Other APPN										

(U) D. Acquisition Strategy

The MP-RTIP program is currently planned to provide sensors for five MC2A aircraft and 12 Global Hawk air vehicles. LRIP quantities will be established at the MP-RTIP Milestone B in FY03.

(U) E. Schedule Profile

		FY 2002				FY 2003				FY 2004			
		1	2	3	4	1	2	3	4	1	2	3	4
(U)	**RADAR REQUIREMENTS REVIEW	*											
(U)	**RADAR FUNCTIONAL REVIEW		*										
(U)	INITIAL DESIGN REVIEW (IDR)							X					
(U)	MILESTONE B								X				
(U)	FINAL DESIGN REVIEW (FDR)											X	

* Denotes completed event

X Denotes planned event

** Activity begun prior to FY 2003 under PE 0207581F, Joint STARS, Projects 670003 and 674995.

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)	DATE: February 2003

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
07 - Operational System Development	0207449F Multi-sensor Command and Control Constellation (MC2C)	5065

(U) A. Project Cost Breakdown ($ in Thousands)

		FY 2002	FY 2003	FY 2004
(U)	MP-RTIP	0	205,535	153,754
(U)	Test Efforts (OITL, JTF, AFOTEC, IV&V)	0	1,910	1,137
(U)	SPO Operations	0	324	334
(U)	Future Studies/Spiral Development	0	600	100
(U)	Total	0	208,369	155,325

Prior to FY01 the MP-RTIP funding was included in Joint STARS/ PE 0207581F, Project 670003. In FY02, MP-RTIP funding was then reported in Joint STARS/PE 0207581F, Project 674995. In FY03, the MC2 Constellation PE, 0207449F, absorbed and continued the MP-RTIP effort.

**FY 2003 funding includes: $61.7M DERF to continue acceleration of MP-RTIP radar design and development for integration onto a MC2A 767-400ER and Global Hawk platforms.

(U) B. Budget Acquisition History and Planning Information ($ in Thousands)

(U) Performing Organizations:

Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Product Development Organizations										
Northrop Grumman-Multi-Platform Radar Technology Insertion Program (MP-RTIP) **	CPAF	DEC 00	456,973	456,973	136,325	0	205,535	153,754	Continuing	TBD
MIT/Lincoln Labs	Various	Various	N/A	N/A			600	100	Continuing	TBD
** FY 2002 Budget $73.170 reflected in Program Element 0207581F (JSTARS), Project 4995 (MP-RTIP)										
** FY 2003: $61.7M DERF added to Project 5065.										
Support and Management Organizations										
Program Office Support	N/A	N/A	N/A	N/A			324	334	Continuing	TBD

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)	DATE: February 2003
BUDGET ACTIVITY: 07 - Operational System Development	PE NUMBER AND TITLE: 0207449F Multi-sensor Command and Control Constellation (MC2C) / PROJECT: 5065

(U) Performing Organizations Continued:

Test and Evaluation Organizations									
OITL	Allotment	N/A	N/A	N/A		1,150	1,000	Continuing	TBD
JTF Support	Allotment	N/A	N/A	N/A		60	0	Continuing	TBD
AFOTEC Support	Allotment	N/A	N/A	N/A		700	0	Continuing	TBD
IV&V	Allotment	N/A	N/A	N/A		0	137	Continuing	TBD

(U) Government Furnished Property:

Item Description	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Delivery Date	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Product Development Property									
N/A									
Support and Management Property									
N/A									
Test and Evaluation Property									
N/A									

Subtotals	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Subtotal Product Development	136,325	0	206,135	153,854	TBD	TBD
Subtotal Support and Management			324	334	TBD	TBD
Subtotal Test and Evaluation			1,910	1,137	TBD	TBD
Total Project	136,325	0	208,369	155,325	TBD	TBD

** FY 2002: Budget $73,170 reflected in JSTARS/PE 0207581F, Project 4995 (MP-RTIP)

** FY 2003: $147M in DERF added to the MC2 Constellation PE.